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& Joe Helfrich

STATEMENT OF BASIS
PACIFICORP-COTTONWOOD/WILBERG MINE
UPDES PERMIT NUMBER: UT0022896
RENEWAL PERMIT
MINOR INDUSTRIAL

FACILITY CONTACTS

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DESCRIPTION OF FACILITY

This facility was an underground coal mine which extracted approximately 2 million tons per year. Currently, Pacificorp has suspended operations at the Cottonwood/Wilberg Mine and has sealed the mine portals. Located approximately 8 miles northwest of Orangeville in Emery County, Utah, the mine is under reclamation. It has Standard Industrial Classification (SIC) code 1222, for Bituminous Coal Underground Mining.

DESCRIPTION OF DISCHARGE

Outfall	Description of Discharge Point
001	Discharge of mine water at latitude 39°19'5", and longitude 111°11'19", continuous, enters Cottonwood Canyon Creek but never makes it to Cottonwood Creek.
002	Eliminated due to reclamation.
003	Discharge of storm water at latitude 39°19'07", and longitude 111°07'13", rarely discharges, would discharge to Grimes Wash.
004	Discharge of mine water at latitude 39°18'43", and longitude 111°10'35", minor seepage, never makes it to Cottonwood Canyon Creek.
005	Discharge of storm water at latitude 39°17'43", and longitude 111°07'18", rarely discharges, would discharge to Grimes Wash.

The wastewater for outfall 001 discharges into Cottonwood Canyon Creek where it all eventually percolates into the ground. Outfall 004 is located in Miller Canyon and consists of small amounts of mine water seepage which never makes it to waters of the State. Outfalls 003 and 005 have settling ponds for treatment of storm water surface discharge and discharge only on very large storm events. The last three years of monitoring data have been analyzed and only two minor violations have occurred (Total Iron 9/30/98 Outfall 001 and TSS 1/31/00 Outfall 003). Quarterly chronic short-

term whole effluent toxicity testing at Outfall 001 revealed no toxicity for six tests (Taken between 9/30/01 and 3/31/02).

SUMMARY OF CHANGES FROM PREVIOUS PERMIT

Whole effluent toxicity testing was instigated when the permit was modified, effective July 25, 2001. This has been eliminated because test results show no reasonable potential for toxicity (no failed tests). Storm water sedimentation basin outfall 002 has been reclaimed, therefore, outfall 002 has been eliminated.

Storm water monitoring requirements have been added in Part I.E.5.a. The permittee must monitor their storm water discharges associated with industrial activity at least quarterly (4 times per year) during years 2 and 4 of the permit cycle. The permittee shall submit monitoring results for each outfall on *Storm Water Discharge Monitoring Report* (*SWDMR*) forms. The following tables lists the storm water monitoring requirements.

Monitoring Requirements for Coal Mining Facilities

Pollutants of Concern	Cut-Off Concentration
Total Recoverable Aluminum	0.75 mg/L
Total Recoverable Iron	1.0 mg/L
Total Suspended Solids	100 mg/L

RECEIVING WATERS AND STREAM CLASSIFICATION

Outfalls 003 and 005 flow into Grimes Wash, thence to Cottonwood Creek. Outfall 001 flows into Cottonwood Canyon Creek and Outfall 004 would flow into Cottonwood Canyon Creek but it seeps into the ground. Grimes Wash is classified 2B, 3C and 4. Cottonwood Creek is classified 1C, 2B, 3A, and 4 according to *Utah Administrative Code (UAC) R317-2-12.7*:

Class 1C – protected for domestic purposes with prior treatment by treatment processes as required by the Utah Division of Drinking Water.

Class 2B – protected for secondary contact recreation such as boating, wading, or similar uses.

Class 3A – protected for cold water species of game fish and other cold water aquatic life, including the necessary aquatic organisms in their food chain.

Class 3C – protected for nongame fish and other aquatic life, including the necessary aquatic organisms in their food chain.

Class 4 – protected for agricultural uses including irrigation of crops and stockwatering.

BASIS FOR EFFLUENT LIMITATIONS

Applicable technology based standards for Coal Mining-Alkaline Mine Drainage are found in *40 CFR 434.40* and will be used because the mine drainage has a pH equal to or greater than 6.0 and total iron concentration of less than 10 mg/L. These regulations specify a 1 day maximum total suspended solids (TSS) of 70 mg/L. TSS monthly average of 25 mg/L and weekly average of 35 mg/L limits are based on current Utah Secondary Treatment Standards, *UAC R317-1-3.2*. The pH is required by the State regulations to be maintained between 6.5 and 9.0 S.U. Coliform and biochemical oxygen demand limits are not included since the permit prohibits the discharge of sanitary wastewater.

The total iron limitation is 1.8 mg/L because of the Total Maximum Daily Load Wasteload Analysis (Wasteload Analysis Page 9).

Total dissolved solids limit of 1 ton per day is based on the Colorado Salinity Control Forum Guidelines.

Oil and grease 10 mg/L limit and no visible sheen are based on the Best Professional Judgement (BPJ). This limit has been included in previous discharge permits for this and other coal mines.

Surface runoff of storm events less than or equal to the 10-year, 24-hour precipitation is limited to a settleable solids of 0.5 ml/L.

Based on effluent monitoring data and the existing treatment facility, the permittee is expected to be able to comply with the limitations.

Effluent Limitation in mg/L

Parameter	30-Day Avg.	7-Day Avg.	Daily Min.	Daily Max.
TSS, mg/L	25	35	N.A.	70
Total Iron, mg/L	N.A.	N.A.	N.A.	1.8
Oil & Grease, mg/L	N.A.	N.A.	N.A.	10
pH, S.U.	N.A.	N.A.	6.5	9.0
TDS, (sum tot.)lbs/day	N.A.	N.A.	N.A.	2000

SELF-MONITORING AND REPORTING REQUIREMENTS

The permittee is required to monitor and report total flow, TSS, oil & grease, total iron, TDS and pH each month. This reporting requirement will be submitted on Discharge Monitoring Report (DMR) forms. Reports are due 28 days after the end of the reporting period.

Self-Monitoring and Reporting Requirements for Influent

Parameter	Frequency	Sample Type	Units
Total Flow	Monthly	Measured	MGD
TSS	Monthly	Grab	mg/L
Total Iron	Monthly	Grab	mg/L
Oil & Grease	When sheen observed	Grab	mg/L
pH	Monthly	Grab	S.U.
TDS	Monthly	Grab	mg/L

STORMWATER REQUIREMENTS

This permit will include provisions of the Multi-Sector General Permit for Storm Water Discharges Associated with Industrial Activity as per the permittees request. Requirements for the pollution prevention plan were taken from the Coal Mining sector.

PRETREATMENT REQUIREMENTS

This mine does not discharge process wastewater to any public sanitary sewer system. Any process wastewater that the facility may discharge to the sanitary sewer, either as direct discharge or as a hauled waste, is subject to federal, state and local pretreatment regulations. Pursuant to section 307 of the Clean Water Act, the permittee shall comply with all applicable Federal General Pretreatment Regulations promulgated, found in 40 CFR section 403, the State Pretreatment Requirements found in UAC R317-8-8, and any specific local discharge limitations developed by the Publicly Owned Treatment Works (POTW) accepting the waste.

BIOMONITORING REQUIREMENTS

A nationwide effort to control toxic discharges where effluent toxicity is an existing or potential concern is regulated in accordance with the *State of Utah Permitting and Enforcement Guidance Document for Whole Effluent Toxicity Control (biomonitoring)*. Authority to require effluent biomonitoring is provided in *Permit Conditions, UAC R317-8-4.2, Permit Provisions, UAC R317-8-5.3* and *Water Quality Standards, UAC R317-2-5* and *R317 -2-7.2.*

Since the permittee has ceased active coal extraction, passed all biomonitoring tests, and a reasonable potential for toxicity does not exist, biomonitoring will not be required. In the event of any unforeseen toxicity occurring at the facility the permit does contain a toxicity limitation-reopener provision.

PERMIT DURATION

It is recommended that this permit be effective for a duration of five (5) years.

Drafted by James W. Hawkes
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